

In The Claims:

Please amend claim 1 so that the claims hereafter read as follows:

1. (Currently Amended) A video-based surgical targeting system comprising:

a patient-specific database comprising a plurality of 2-D images of the anatomical structure of a patient;

a patient-specific 3-D computer model of said anatomical structure of said patient, said patient-specific 3-D computer model being assembled from said plurality of 2-D images contained in said patient-specific database;

at least one virtual graft for insertion into the 2-D images contained in the patient specific database and/or the 3-D computer model;

graft placement apparatus for (i) inserting the at least one virtual graft into said 2-D images contained in said patient-specific database, and/or (ii) inserting the at least one virtual graft into said 3-D computer model;

an image generator for generating a virtual image of the anatomical structure modeled by said patient-specific 3-D computer model;

a real-time image generating device for generating a real image of the anatomical structure of a patient;

a video mixing device for selectively mixing said virtual image and said real image into an output image, whereby said output image comprises either one of the two images exclusive of the other, or a composite of both images wherein the virtual

image and the real image are simultaneously displayed in registration with one another; and

display means for displaying said output image.